ABSTRACT

This invention provides a method for assaying activities of signal transduction that enables identification of a ligand with a single assay method, thereby simplifying and accelerating the assay method for identifying a ligand of a GPCR with unknown functions. In this method, RNA encoding a GPCR and RNA encoding a chimeric Gqα subunit constituted by a portion of a G_{11} or Gq subunit and a portion of a G_{14}, G_{15}, or G_{16} subunit are transfected together to an oocyte removed from a Xenopus and selected by a conventional technique. After transfection of the RNAs, a ligand candidate substance is added to the oocyte that was cultured for a given period of time, and the activity is then assayed.